

### **REMARKS**

In response to the above-identified Final Office Action, no claims are amended, no claims are cancelled and no claims are added. Accordingly, Claims 1-3, 5, 10-13, 15-22, 24 and 26-43 are pending and are rejected. Reconsideration and withdrawal of the rejections of record are requested in view of the following discussion.

#### **I. Claim Rejections Under 35 U.S.C. §103**

The Examiner rejects Claims 1-3, 5, 10-13, 15-22, 24 and 26-29 under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,343,311 issued to Salesky et al. ("Salesky") and U.S. Patent No. 5,903,473 issued to Teng et al. ("Teng"). Applicant respectfully traverses this rejection.

To establish a *prima facie* case of obviousness, the following criteria must be met: (1) there must be some suggestion or motivation to modify the reference or combine the reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art references must teach or suggest all the claim limitations. [MPEP §2142] Based on Applicants' arguments provided below, Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness in view of the references of record.

Regarding Claim 1, Claim 1 includes the following claim features, which are neither taught nor suggested by either Salesky, Teng or the references of record:

identifying, by a video controller, a first updated portion of first video image data that has changed since a previous transmission to a first display;  
transmitting the first updated portion of the first video image data from the video controller to a video memory contained within the first display.

Salesky describes a presenter client computer 12 that identifies data that has been updated within an image and limits transmission of data to updates of the image. As described in col. 12, lines 17-67 of Salesky, Salesky teaches the detection of updated image data by comparison to a stored image. As illustrated in FIG. 1 of Salesky, presenter client computer 12 transmits the updated image data to conference server 14. Conference server 14 is responsible for transmitting data to the attendee client computers 18A-18C, which display an updated image. (See col. 12, lines 63-67.)

Applicants respectfully submit that conference server 14, as taught by Salesky, does not detect the updated portion of video image data, but merely forwards the updated portion of video image data received from presenter client computer 12. Hence, although Salesky teaches the detection of updated image data by presenter client computer 12, Claim 1 requires identification of a first updated portion of first video image data and a second updated portion of video image data by a video controller. Hence, Applicants respectfully submit that detection of updated image data by

presenter client computer 12, as taught by Salesky, fails to teach or suggest a video controller to detect first and second updated portions of video image data, as recited by Claim 1.

As correctly pointed out by the Examiner, Salesky does not disclose transmitting of updated image data from a video controller to a display. In addition, Salesky also does not teach the first updated portion and the second updated portion being transmitted over a shared communication channel coupled between the video controller, the display device and the second display device. As a result, the Examiner cites Teng.

Assuming, arguendo, that Teng teaches a video controller that is connected to a local area network, as suggested by the Examiner, Applicants respectfully submit that the Examiner's proposed modification of Salesky's client server system (FIG. 1) to adapt Teng's use of video server 12, along with shared transmission medium (13), as illustrated in FIG. 1, would fail to teach or suggest each of the above-recited features of Claim 1. Specifically, Claim 1 requires:

wherein the first updated portion and the second updated portion are transmitted over a shared communication channel coupled between the video controller, the first display and the second display. (Emphasis added.)

Applicants respectfully submit that to illustrate the above-recited feature of a shared communications channel, as recited by Claim 1, the modification proposed by the Examiner would require incorporation of the video controller of Teng within the conference server 14, as taught by Salesky. However, such combination would still fail to teach the video controller to detect the first and second updated portions of image data, as recited by Claim 1, since the teachings of Salesky are limited to detection of the updated image data by the presenter client computer 12. Accordingly, Applicants respectfully submit that the Examiner fails to establish that the proposed modification of Salesky in view of Teng teaches or suggests each of the above-recited features of Claim 1.

Furthermore, Applicants respectfully submit that the Examiner fails to establish a suggestion or motivation to combine the reference teachings of Salesky in view of Teng. As presented by the Federal Circuit:

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123, U.S.P.Q. 349 (C.C.P.A. 1959).

Applicants respectfully submit that the modification of Salesky in view of Teng to render the above-recited features of Claim 1 obvious requires incorporation of the functionality of presenter client computer 12 within a video controller of conference server 14, as modified by Teng. However, Applicants submit that such a modification would, in effect, require a change of the principle in operation of Salesky, since incorporation of the presenter client computer functionality within conference server 14 would obviate the need for presenter client computer 12.

To render the features of Claim 1 obvious over Salesky in view of Teng, the Examiner would be required to show a modification of Salesky to provide a combination conference server and presenter client computer. In other words, presenter client computer 12 is generating the data, which is provided to attendee client computers 18 via conference server 14. Hence, detection of updates of the data presented by the computer 12 is best performed within the presenter client computer 12 in order to limit the amount of data transmitted between presenter client computer 12 and conference server 14 to reduce perceived end-to-end latency. (See, Abstract.)

Accordingly, one skilled in the art might provide a presenter client computer 12 that functions as the conference server if Salesky did not specifically teach away from such a modification. In fact, Applicants respectfully submit that such a modification would render Salesky unsatisfactory for its intended purpose, since, as described within Salesky:

An attendee can become a presenter by sending the appropriate attendee to presenter command to conference server 14. (col. 8, lines 55-57.)

Therefore, Applicants respectfully submit that the Examiner fails to establish a suggestion or motivation to modify Salesky in view of Teng since such a modification would render Salesky unsatisfactory for its intended purpose by prohibiting the capability of an attendee to become a presenter, as required by Salesky as well as change the principle of operation of Salesky. Accordingly, Applicants respectfully submit that the teachings of the combinations of Salesky in view of Teng are not sufficient to render the claims *prima facie* obvious. *Id.*

Consequently, Applicants respectfully submit that the Examiner fails to establish that it would be obvious to combine the missing elements provided by Teng with the teachings of Salesky. It is also well established that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent the teaching or suggestion supporting such combination. ACS Hospital Sys., Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Moreover, one cannot find obviousness through hindsight to construct a claimed invention from elements of the prior art. In re Warner, 379 F.2d 1011, 1016, 154 U.S.P.Q. 173, 177 (C.C.P.A. 1967).

Accordingly, Applicants respectfully submit that Applicants' claimed invention could only be arrived at through inappropriate hindsight. Therefore, Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness, since the Examiner fails to provide a suggestion or motivation to modify or combine the reference teachings.

Hence, Claim 1 is patentable over the combination of Salesky in view of Teng, as well as the references of record. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §103(a) rejection of Claim 1.

Regarding Claims 2-3, 5 and 10-13, Claims 2-3, 5 and 10-13 depend from Claim 1 and therefore include the patentable claim features of Claim 1, as described above. Accordingly, Claims

2-3, 5 and 10-13, based on their dependency from Claim 1, are also patentable over Salesky, Teng and the references of record. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 2-3, 5 and 10-13.

Regarding Claim 22, Claim 22 includes the following claim feature, which is neither taught nor suggested by either Salesky, Ohshima, Ahmed or the references of record:

a video controller coupled to the shared communication channel to transmit an identified, first updated portion of first video image data that has changed since a previous transmission to the first display device over the shared communication channel to the first display device, and to transmit an identified, second updated portion of second video image data that has changed since a previous transmission to the second display device over the shared communication channel to the second display device. (Emphasis added.)

By way of contrast, Salesky teaches the transmission of updated image data to a conference server 14, as illustrated in FIG. 1 of Salesky. In other words, as is clearly illustrated in FIG. 1 of Salesky, a communication channel does not exist between presenter client computer 12 and display devices attendee client computers 18A-18C, as required by Claim 22, as amended. As indicated above, modification of Salesky to include a combination presenter client computer and server to teach the features of Claim 22 would render Salesky unsatisfactory of its intended purpose of allowing attending clients to become a presenter. (See, col. 8, lines 55-57.) Accordingly, Applicants respectfully submit that the teachings of the combinations of Salesky in view of Teng are not sufficient to render the claims *prima facie* obvious. *Id.*

Hence, Applicants respectfully submit that Applicants' claimed invention could only be arrived at through inappropriate hindsight. Therefore, Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness, since the Examiner fails to provide a suggestion or motivation to modify or combine the reference teachings. Accordingly, Claim 22 is patentable over Salesky, Teng and the references of record. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claim 22.

Regarding Claims 15-21, 24 and 26-29, Claims 15-21, 24 and 26-29 depend from Claim 22 and therefore include the patentable claim features of Claim 22, as described above. Accordingly, Claims 15-21, 24 and 26-29, based on their dependency from Claim 22, are also patentable over Salesky, Teng and the references of record. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 15-21, 24 and 26-29.

The Examiner rejects Claims 2 and 18-19 under 35 U.S.C. §103(a) as unpatentable over Salesky, Teng and U.S. Patent No. 5,977,945 issued to Ohshima ("Ohshima"). Applicant respectfully traverses this rejection.

Regarding Claim 2, Claim 2 depends from Claim 1 and therefore includes the patentable claim features of Claim 1, as described above. Regarding the Examiner's citing of Ohshima, the

Examiner's citing of Ohshima fails to rectify the absence of a suggestion or motivation to modify Salesky in view of Teng, as suggested by the Examiner to teach or suggest each feature recited by Claim 1.

Accordingly, Claim 1 is patentable over the combination of Salesky in view of Teng and further in view of Ohshima. Consequently, Claim 2, based on its dependency from Claim 1, is also patentable over the combination of Salesky in view of Teng and further in view of Ohshima. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §103(a) rejection of Claim 2.

Regarding Claims 18 and 19, Claims 18 and 19 depend from Claim 22 and therefore include the patentable claim features of Claim 22, as described above. As indicated with regards to Claim 2, the Examiner's citing of Ohshima fails to rectify the deficiencies in the combination or modification of Salesky in view of Teng, as suggested by the Examiner, since the modification fails to teach or suggest each of the above-recited features of Claim 22. Accordingly, Claim 22 is patentable over the combination of Salesky in view of Teng and further in view of Ohshima. Consequently, Claims 18 and 19, based on their dependency from Claim 22, are also patentable over the combination of Salesky in view of Teng and further in view of Ohshima. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §103(a) rejection of Claims 18 and 19.

The Examiner rejects Claims 30-33 under 35 U.S.C. §103(a) as unpatentable over Salesky, Teng and U.S. Patent No. 5,459,842 issued to Begun et al. ("Begun"). Applicant respectfully traverses this rejection.

Regarding Claims 30 and 31, Claims 30 and 31 depend from Claim 22 and therefore include the patentable claim features of Claim 22, as described above. Regarding the Examiner's citing of Begun, for at least the reasons described above, Applicants respectfully submit that the Examiner's citing of Begun fails to rectify the absence of a suggestion or motivation to modify Salesky in view of Teng to teach or suggest each of the above-recited features of Claim 22. Accordingly, Claims 30 and 31, based on their dependency from Claim 22, are also patentable over the combination of Salesky in view of Teng and further in view of Begun. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §103(a) rejection of Claims 30 and 31.

Regarding Claims 32 and 33, Claims 32 and 33 depend from Claim 1 and therefore include the patentable claim features of Claim 1, as described above. Regarding the Examiner's citing of Begun, for at least the reasons described above, Applicants respectfully submit that the Examiner's citing of Begun fails to rectify the deficiencies attributed to the modification of Salesky in view of Teng, which fails to teach or suggest each of the above-recited features of Claim 1. Accordingly,

Claims 32 and 33, based on their dependency from Claim 1, are also patentable over the combination of Salesky in view of Teng and further in view of Begun. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §103(a) rejection of Claims 32 and 33.

The Examiner rejects Claims 34 and 39 under 35 U.S.C. §103(a) as unpatentable over Ohshima, Teng and Begun. Applicant respectfully traverses this rejection.

Regarding Claim 34, Claim 34 recites the following claim features, which are neither taught nor suggested by either Ohshima, Teng, Begun or the references of record:

detecting, by a display device, an updated portion of video image data received over a shared communication channel;

updating a video memory of the display device if an address associated with the updated portion of the video image data matches a display device address. (Emphasis added.)

Conversely, Ohshima is directed to preventing the dispersion of an object on a screen when multi-interlacing is applied. As described within Ohshima:

If a display is performed by the use of the multi-interlacing, the object which is reproduced on a screen (for example, cursor, character, icon, other graphics, or the like) is accompanied by so-called "barake" or dispersion when it is shifted or nearly reproduced; hence spoiling the quality of the display significantly. (col. 1, lines 31-36.) (Emphasis added.)

As further described within Ohshima:

A partial rewriting method is provided, such that in shifting an object on a screen or reproducing it thereon, only the line where the screen representation changes is temporarily displayed by non-interlacing method. (col. 1, lines 44-47.) (Emphasis added.)

Accordingly, Ohshima describes an object of the invention to provide specific means or structure to implement the foregoing partial writing method. As described within Ohshima:

Display driver means 12 updates the image data in the frame buffer as requested by the application software 11 and at the same time transfers the information regarding updated line to partially rewritten line determination means 16. The partially rewritten line determination means 16 determines the line for which partial rewriting must be executed on the basis of information transferred from the display driver means, and then deliver the information to scan line control means. (col. 2, lines 35-43.) (Emphasis added.)

Conversely, Claim 34 recites:

detecting, by a display device, an updated portion of video image data received over a shared communication channel.

Applicants respectfully submit that determining the line for which partial rewriting must be executed provides no teachings or suggestions with regards to the detection of an updated portion of video image data since this information is provided by the display driver means. Furthermore, Ohshima requires:

The variable scan position raster scan display means 14 transfer the data in the frame buffer corresponding to the lines specified by the scan line control means to an FLC display 15 for display. (col. 2, lines 46-49.)

Hence, Applicants respectfully submit that even assuming, arguendo, that Ohshima taught the detection of an updated portion of video image data, Claim 34, further recites updating a video memory of the display device. Conversely, the transfer of the data corresponding to the determined line to the FLC display 15 for display provides no teachings or suggestions with regards to updating video memory. Furthermore, as recited above, the detection of an updated portion of video image data is received from a shared communications channel, which is neither taught nor suggested by Ohshima.

According to the Examiner, it is obvious to modify Ohshima's client server system to adapt Teng's shared transmission medium 13. However, as is clearly illustrated by FIGS. 2-4 of Ohshima, the functionality described occurs within a computer architecture and therefore provides no teachings or suggestions with regards to the receipt of updated image data from a shared communications channel. In other words, Applicants respectfully submit that one skilled in the art would not modify, and could not modify, Ohshima to include the shared communications channel, since the various components of the computer system described within Ohshima are internal to a computer and communicate via SBUS 26.

Accordingly, Applicants respectfully submit that one skilled in the art would not look to prior art to introduce a shared transmission medium, such as taught by Teng, since the teachings of Ohshima, Teng and the references of record provide no suggestion or motivation for doing so. In other words, the teachings of Ohshima are strictly limited to a computer architecture within a computer and therefore have no application with regards to a plurality of networked computers. Hence, the problem of preventing dispersion of an object on a screen when multi-interlacing is applied is generally not a problem that is encountered by network devices, but it is, in fact, a problem that is limited to a specific computer. Furthermore, Claim 34 further recites:

updating a video memory of the display device if an address associated with the updated portion of the video image data matches a display device address.  
(Emphasis added.)

As correctly pointed out by the Examiner, such a feature is neither taught nor suggested by either Ohshima or Teng. Moreover, in spite of teaching a shared transmission medium, Teng provides no teachings with regards to comparison of an address associated with an updated portion

of video image data to determine whether to store the video image data if the address matches a display device address. Accordingly, the Examiner cites Begun. Begun teaches a write compression buffer connected to a CPU and a memory controller to provide write cycle compression in which plural partial write requests to the same memory address are compressed into a single memory write cycle (*See Abstract*).

Applicants respectfully submit that write combining, as taught by Begun, has virtually no relation to the updating of a video memory of a display device if an address associated with the updated portion of video image data matches a display devices address, as recited by Claim 34. In fact, Applicants respectfully submit that the proposed modification indicated by the Examiner would change the principle of operation of Ohshima by replacing SBUS 26 with the shared transmission medium of Teng. Accordingly, Applicants respectfully submit that the Examiner fails to establish that it would be obvious to combine the missing elements provided by Teng and Begun with the teachings of Ohshima. *Id.*

Consequently, Applicants respectfully submit that Applicants' claimed invention can only be arrived at through inappropriate hindsight. Therefore, Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness of Claim 34, since the Examiner fail to teach or suggest each feature of Claim 34 and the Examiner fails to provide a suggestion or motivation to combine the reference teachings. Hence, Claim 34 is patentable over the combination of Ohshima in view of Teng and further in view of Begun, as well as the references of record. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §103(a) rejection of Claim 34.

Regarding Claim 39, for at least the reasons indicated above with reference to Claim 34, the combination of Ohshima in view of Teng and further in view of Begun fails to teach or suggest the following feature of Claim 39:

an interface coupled to the video memory, the interface to detect an updated portion of video image data received over a shared communication channel and to update the video memory if an address associated with the updated portion of video image data matches a display device address. (Emphasis added.)

As indicated above, the transfer of data in a frame buffer corresponding to a line for which partial rewriting must be executed, is not analogous to, and provides no teachings or suggestions, regarding the detection of updated image data. Likewise, the Examiner fails to illustrate a suggestion or motivation for adding a shared communications channel to Ohshima, since the techniques described within Ohshima are limited to the internal hardware components of a computer display system and therefore would not be an issue regarding a networking of computers to suggest a shared communications channel. In fact, one skilled in the art would not replace SBUS 26 of Ohshima with the shared transmission channel taught by Teng.



Finally, the write combining, as taught by Begun, would generally not be used by one skilled in the art to modify the display system, as taught by Ohshima. Accordingly, Applicants respectfully submit that the Examiner fails to establish that it would be obvious to combine the missing elements provided by Teng and Begun with the teachings of Ohshima.

Consequently, Applicants respectfully submit that Applicants' claimed invention could only be arrived at through inappropriate hindsight. Therefore, Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness of Claim 39, since the Examiner fails to provide a suggestion or motivation to modify or combine the reference teachings.

Hence, Claim 39 is patentable over the combination of Ohshima in view of Teng and further in view of Begun. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §103(a) rejection of Claim 39.

The Examiner rejects Claims 35-38 and 40-43 under 35 U.S.C. §103(a) as unpatentable over Ohshima, Teng, Begun and Salesky. Applicant respectfully traverses this rejection.

Regarding the Examiner's citing of Salesky, the Examiner's citing of Salesky fails to rectify the deficiencies attributed to the combination of Ohshima in view of Teng and further in view of Begun, since Salesky fails to provide some suggestion or motivation for combining the reference teachings of Ohshima in view of Teng and further in view of Begun, since the proposed combination would require modification of the principle of operation of Ohshima. Hence, the combination of Ohshima in view of Teng and further in view of Begun and further in view of Salesky are not sufficient to render either Claim 34 or Claim 39 *prima facie* obvious.

Regarding Claims 35-38, Claims 35-38 depend from Claim 34 and therefore include the patentable claim features of Claim 34, as described above. Accordingly, Claims 35-38, based on their dependency from Claim 34, are also patentable over the combination of Ohshima in view of Teng and further in view of Begun and further in view of Salesky. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §103(a) rejection of Claims 35-38.

Regarding Claims 40-43, Claims 40-43 depend from Claim 39 and therefore include the patentable claim features of Claim 39, as described above. Accordingly, Claims 40-43, based on their dependency from Claim 39, are also patentable over the combination of Ohshima in view of Teng in view of Begun and further in view of Salesky. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §103(a) rejection of Claims 40-43.

**CONCLUSION**

Applicant has amended the claims to recite features that are not taught or suggested by the references. No new matter is introduced by the Applicant's claim amendments, which are supported in Applicant's specification and are necessary for placing the present application in condition for allowance.

In view of the foregoing, it is believed that all claims now pending, namely Claims 1-4, 5, 10-13, 15-22, 24 and 26-43 patentably define the present application over the prior art of record, and are therefore in condition for allowance; and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207-3800, ext. 738.

Respectfully submitted,


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I hereby certify that this correspondence is being transmitted via facsimile on the date shown below to the United States Patent and Trademark Office.

  
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9/21/04  
Date